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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,283	09/12/2003	Scott C. Blanchet	B429-073	7622

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EXAMINER	
HODGE, ROBERT W	

ART UNIT	PAPER NUMBER
1746	

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/661,283	BLANCHET ET AL.	
	Examiner	Art Unit	
	Robert Hodge	1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,6-37 and 40-60* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,6-37 and 40-60* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 3, 6-37 and 40-60 have been considered but are moot in view of the new ground(s) of rejection.

2. Applicant's arguments, see Remarks/Arguments, filed 3/3/05 and 5/18/05, with respect to the objection of claim 24 and the rejection of claim 33 under 35 USC 112 2nd paragraph have been fully considered and are persuasive. The objection and rejection of claims 24 and 33 respectively has been withdrawn.

3. The examiner acknowledges that claims 2, 4, 5, 38 and 39 have been canceled and the subject matter has been added to other claims.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3, 6-18, 20 and 22-36 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,070,911 hereinafter Namikawa.

6. Namikawa teaches a connection assembly for connecting two pipes that are at different electrical potentials by using dielectric materials sandwiched in between two plates or flanges that are weldable, using bolts and or substantially v-shaped clamps to hold the two members together, using a dielectric member that has a smaller opening

that that of the two pipes, and that dielectric tubes are used around the bolts, and that said bolts also have nuts and washers used in the assembly that also comprise metal, dielectric and non-dielectric washers. Namikawa also teaches that any and all of the parts used in the assembly may be coated with a dielectric material that is of a mica material and/or a ceramic coating (abstract, figures 1-5, column 1 lines 6-54 and column 2 line 11 – column 4, line 59).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Namikawa in view of U.S. Patent No. 5,967,566 hereinafter Schlicht.

9. Namikawa teaches everything in the above 102 rejection.

10. Namikawa does not teach the use of an ASME slip-on flange.

11. Schlicht teaches a lightweight slip on pipe flange that is a conventional ASME flange (column 1, lines 52-63 and column 3, lines 51-64).

12. At the time of the it would have been obvious to a person of ordinary skill in the art to include a conventional ASME flange in the Namikawa reference as taught by Schlicht in order to use a well known and recognized slip-on flange that is easily attainable and would allow for easy assembly of the connector.

13. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Namikawa in view of U.S. Pre-grant publication No. 2004/0137259 hereinafter Pabla.

14. Namikawa teaches everything in the above 102 rejection.

15. Namikawa does not teach the use of NiCrAlY and Al_2O_3 as the dielectric materials to be used in the coatings.

16. Pabla teaches that NiCrAlY and Al_2O_3 are well known for their dielectric properties and are especially desirable in dielectric coatings (paragraphs [0008], [0014], [0022], [0033], and tables III and IV).

17. At the time of the invention it would have been obvious to a person of ordinary skill in the art to use NiCrAlY and Al_2O_3 as the dielectric materials in the Namikawa reference as taught by Pabla in order to use well known dielectric materials that would provide an electrically insulative coating that would be durable and easily attainable for manufacturing purposes.

18. Claims 37, 40-51, 53, 55-56 and 58-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Namikawa in view of Energy Partners.

19. Namikawa teaches everything in the above 102 rejection.

20. Namikawa does not teach the use of the connection assembly with a fuel cell stack.

21. As discussed in the previous office action Energy Partners released an article on June 11, 1999 disclosing a 20 kW fuel cell stack is called the NG2000. Further research reveals a picture of the NG2000 that has connectors mounted to it that use an industry standard butt weld sanitary ferrule connectors that are commercially available.

As can be seen in the picture it is clearly a fuel cell stack assembly having more than one sanitary ferrule connector.

22. At the time of the invention it would have been obvious to a person of ordinary skill in the art that the connection assembly taught by Namikawa could also be use in the Energy Partners fuel cell stack in order to electrically isolate the stack from the fuel source especially at high operating pressures in order to reduce the risk of a potential explosion due to the extreme combustibility of gases used in fuel cell stacks.

23. Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Namikawa in view of Energy Partners and further in view of Schlicht.

24. Namikawa and Energy Partner teach everything in the above 102 and 103 rejections.

25. Namikawa and Energy Partner do not teach the use of an ASME slip-on flange.

26. Schlicht teaches a lightweight slip on pipe flange that is a conventional ASME flange (column 1, lines 52-63 and column 3, lines 51-64).

27. At the time of the it would have been obvious to a person of ordinary skill in the art to include a conventional ASME flange in the Namikawa reference as taught by Schlicht in order to use a well known and recognized slip-on flange that is easily attainable and would allow for easy assembly of the connector.

28. Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Namikawa in view of Energy Partners and further in view of Pabla.

29. Namikawa and Energy Partner teach everything in the above 102 and 103 rejections.

30. Namikawa and Energy Partner do not teach the use of NiCrAlY and Al_2O_3 as the dielectric materials to be used in the coatings.

31. Pabla teaches that NiCrAlY and Al_2O_3 are well known for their dielectric properties and are especially desirable in dielectric coatings (paragraphs [0008], [0014], [0022], [0033], and tables III and IV).

32. At the time of the invention it would have been obvious to a person of ordinary skill in the art to use NiCrAlY and Al_2O_3 as the dielectric materials in the Namikawa reference as taught by Pabla in order to use well known dielectric materials that would provide an electrically insulative coating that would be durable and easily attainable for manufacturing purposes.

33. Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over Namikawa in view of Energy Partners and further in view of Guthrie et al. U.S. Patent No. 4,786,086 hereinafter referred to as Guthrie et al.

34. Namikawa and Energy Partner teach everything in the above 102 and 103 rejections.

35. Namikawa and Energy Partner do not disclose that the fuel cell stack assembly be enclosed in a vessel with a pipe extending through said vessel.

36. Guthrie et al. teaches that a fuel cell stack operated at high pressures must be contained in a pressure vessel (column 1, lines 20-22) and that pipes will penetrate the stack pressure vessel (column 3, lines 25-26).

37. At the time of the invention it would have been obvious to a person of ordinary skill in the art to enclose a high-pressure fuel cell stack within a pressure vessel. The

motivation for doing so would have been first to maintain the fuel cell stack at the desired pressure for operation without the loss of gases from leaks between the cells due to the pressure differential between the stack and the atmosphere. As well as to contain the fuel cell stack for safety purposes if a component were to explode due to the high operating pressure.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Hodge whose telephone number is (571) 272-2097. The examiner can normally be reached on 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RWH 6-27-05

MICHAEL BARR
SUPERVISORY PATENT EXAMINER